CENTER ROUTING SLIP

FROM	DATE
APSD	12-15-69

TO		INITIALS	DATE	REMARKS
DIRECTOR				
DEP/DIRECTOR				
EXEC/DIRECTOR				
SPECIAL ASST				
ASST TO DIR				
ASST TO DEP/DIR				
				17 DEC 1969 eha
CH/PPBS	X		12/17	x attn: [redacted]
DEP CH/PPBS				
EO/PPBS				Edna
				Pls L/r in
CH/IEG				ARGO-Duty
DEP CH/IEG				
EO/IEG				
CH/PSG				
DEP CH/PSG				
EO/PSG				
CH/TSSG				
DEP CH/TSSG				
EO/TSSG				
CH/SSD/TSSG				
PERSONNEL				
LOGISTICS				
TRAINING				
RECORDS MGT				
SECURITY				
FINANCE				
DIR/IAS/DDI				
CH/DIAXX-4				
CH/DIAAP-9				
CH/SPAD				

25X1

IP FM 30 (11-68) - OBSOLETE PREVIOUS EDITIONS

SECRET

TSSG/APSD/IEB-041/69
26 November 1969

MEMORANDUM FOR THE RECORD

SUBJECT: Steering Committee/ARGO Meeting, 1 October 1969

1. [redacted] and I attended a meeting of the Steering Committee/ARGO on 1 October 1969. The meeting was held in Room 208 of the Executive Office Building. This memorandum is a report of that meeting. 25X1

2. The Department of Agriculture representatives presented an up to date report of their underflight program. The program consists of eight multi-sensor flights during the growing season of the Imperial Valley. Seven flights, beginning in April, have been flown with the last one scheduled for late October. Ground truth color photography (Ektachrome) was acquired in conjunction with each flight to record the crop growth level at that point in the growing season. Thus far, only two of these missions have been processed and printed. The major delay toward completion lies with the low priority given this project. [redacted] 25X1
[redacted] indicated that he may be able to expedite work on the 25X1
backlogged missions if the following questions were answered. Can the number of reproductions be reduced? He wondered if each recipient needed entire copies or could they request specific segments for reproduction if the material was numerically indexed. He also inquired if each recipient had the capability, equipment and personnel to utilize all of the material simultaneously or if it is possible to share copies between groups. The answers were not readily available but it was said they would be provided by phone to [redacted] CIA, gave a brief 25X1
presentation of his efforts in support of the underflight program and some additional data of similar studies being sponsored by CIA.

3. The USGS informed the committee of the successful passage of the S.S. Manhattan through the Northwest Passage to Alaska. The planned surveillance support of this venture with SR-71 aircraft flights did not materialize because of the cost and risk involved. Future surveillance support of these Northwest Passage voyages may

SECRET

TSSG/APSD/IEB-041/69

SUBJECT: Steering Committee/ARGO Meeting, 1 October 1969

be provided by U-2 aircraft.

4. [redacted] OEP, presented some data concerning the usability of photographic coverage of the Camille disaster area. He had received a huge volumn of photography from numerous sources covering the gulf coast area. Studies of the photography were still being made but estimates of the damages can readily be made. Attached is a copy of his preliminary report, but the reproductions made from the photo illustrations are very poor. 25X1

5. The meeting closed with a proposed date of the next meeting set for 25 November 1969 (since changed to 9 December 1969). A tentative agenda was also stated to include a short briefing on the new SO-242 color emulsion by NPIC representatives. The meeting was informative, interesting, but confusing to me since my attendance was on short notice and my background knowledge to the functions of the ARGO Steering Committee quite limited.

[redacted] 25X1

NPIC/TSSG/APSD/IEB/Sec II

Distribution:
Orig - NPIC/TSSG/APSD, w/a
1 - NPIC/TSSG/APSD, w/a
1 - NPIC/PPBS/Ch, Attn: [redacted] 25X1

Attachment to
TSSG/APSD/IEB-041/69

HURRICANE "CAMILLE"

An Appreciation of the Damage As Interpreted from Aerial Photography

by

[redacted]

Resource Evaluation Division
National Resource Analysis Center
Office of Emergency Preparedness

25X1

August 29, 1969

ACKNOWLEDGEMENTS

Grateful acknowledgements are extended to the following individuals and organizations for their assistance in the preparation of this study and without whose cooperation it would not have been possible:

[redacted] and his enthusiastic staff at the U. S. Geological Survey, Special Projects Office, Reston, Virginia, for their support in providing photographic and related technical support as well as working facilities; 25X1

[redacted] Office of Science and Technology, Executive Office of the President, for his forthright and prompt efforts in acquiring from the U. S. Topographic Command, the photographic imagery of the Camille disaster areas; 25X1

[redacted] Earth Resources Program, NASA Headquarters, and to other individuals there and at the NASA Manned Spacecraft Center, Houston, for initial efforts and "alerts" as to availability of Camille imagery; 25X1

[redacted] Emergency Operations Office, Corps of Engineers, U. S. Army, for his efforts leading to the acquisition of this photography; 25X1

And to others in OEP, USGS, the Department of Agriculture whose encouragement and support has been most helpful.

FOREWORD

As the media reports became available describing the extent of the devastion along Mississippi coastal areas and initial uncertainties as to details and specifics, it was almost a "reflex" to make inquiries as to: (a) existence and availability of aerial coverage of the area involved, and (b) requirements placed by OEP or other Federal agencies for such coverage. As an indication of similar concern, several inquiries had been received by the author during this period from Federal and private sources as to the need for and the existence of coverage.

Our first formal inquiries starting August 25 were discouraging, indicating uncertainty as to availability and requirements for same. Fortunately, these initial reports were unfounded. Further information revealed that indeed the Corps of Engineers had requested area coverage of the U. S. Air Force, presumably for area surveys, engineering works applications, rehabilitation, and relief purposes. By August 26, it had been determined that a complete set of the coverage was in Washington at the U. S. Topographic Command. Also, that NASA, Houston had utilized its Earth Resources Aircraft to flying over the area with a variety of sensor equipment (color, color infra red, and black and white photography). Steps were taken to gain access to the Corps of Engineers coverage as well as the NASA imagery. By Wednesday morning, August 27, a complete set of duplicate positive film (20 cans) had been delivered to the USGS facility at Reston, Virginia for use by those Federal agencies with needs so to use it. Similar arrangements were made to acquire copies of the NASA film. Arrangements were then made to view the material at Reston. By close of business August 27, a selection of the photo exposures for annotation and enlargement, and an initial interpretation of major damaged areas had been accomplished.

The principal purpose in presenting this study, preliminary as it is, is to demonstrate a quick reaction capability that is available to those Fed State and local agencies with the need for it. As these agencies are sudd confronted with disaster management problems of great magnitude, one of their earliest requirements is for definitive information. The aeri photographic medium is a source of information which is capable of much of this needed information and in a fairly rapid time sense.

In this spirit the following illustrated report was undertaken. It does not attempt to present a detailed analysis of area or local damage effects. Several areas were chosen for analysis and illustration. Much more damage than described was visible in the photography and therefore reportable. For example, the residential areas in Gulfport and Pass Christian selected for annotation, represent large and very obvious areas of contiguous damage. Adjoining areas along the water front and further inland had suffered almost equally from the severity of flood waters and wind. More detailed interpretation would develop these areas as well.

Photographic Notes:

USAF coverage: Mission Camille, August 21, 1969, scale: approx. 1:27,000.

NASA coverage: (Not yet available at this writing.) Flown August 19, 20, 1969; several missions; high and low altitudes; coverage with black and white, color, infra red, black and white infra red.

Gulfport, Mississippi — Exhibit A

Gulfport Harbor Area — Exhibit A-1

Note: 1. (3) beached ships - 450 ft - 490 ft length

2. Breakwater and yacht basin - breached dolphins and piers; absence of small boats.

3. Damage and destruction of buildings on wharves and piers. Roughly 15-20 warehouses and other buildings damaged or destroyed.

Residential Area — Exhibit A-2

Beach front residential area 1-2 miles in length with almost complete destruction of housing.

U. S. Naval Reservation — Exhibits A-3, A-4

6 large warehouse buildings (550' x 110') almost totally damaged

4 warehouses (230' x 90') destroyed

17 warehouses (185' x 40') severely damaged

Pass Christian, Mississippi — Exhibit B

From the photographs, it would appear that this small town along the gulf-front was almost completely washed out. Dwellings have been washed away or from foundations and deposited considerable distances away; barges are observed 1-2 miles inland, etc.

Residential Section — Exhibit B-1

An area of major destruction. Of more than 200 buildings previously standing, about 1/2 appear to have been destroyed.

Highway Bridge — Exhibit B-2

Highway Bridge about 2 miles north of Pass Christian crossing Bayou Portage, was partially damaged. One span is out and damage is visible on another.

Remarks

The foregoing interpretation report is very cursory. As noted in the foreword, it attempts to demonstrate graphically the wealth of information in the aerial photographic imagery that is available to disaster managers, and fo indicate the relative facility and rapidity with which data can be developed.

The extraction of information presents little or no problem save that required to assemble photographic interpreters and to put them to work analyzing the photography. Upon receipt of disaster coverage of an area of this magnitude, an information report could be ready for dissemination within an hour or two. Follow-up detailed reports, somewhat longer. Photographic interpretation skills are readily available within the Federal establishment in the Washington area. They are available to a lesser extent at State and local levels within regional and other offices of USDA, USGS, Corps of Engineers and others. It becomes a matter of delineating the work needed and getting it underway.

Perhaps the two most pointed observations to be made from this study are:

1. The almost uniform interest, cooperation and support in making the fullest use of aerial photographic and other sensor imagery under the disaster conditions created by Camille.

2. The apparent lack of a visible and coordinated effort to develop uniform requirements for disaster aerial surveys; to report on the availability of same; and the generation of a common requirement for the information contained therein.

It is noteworthy that elements of the Federal establishment accustomed to utilize photographic survey information are currently discussing the establishment of formal procedures for future use in this connection. It is the opinion of the author that OEP should provide the coordination element.